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10/565,392	08/15/2006	Masayoshi Son	284809US2PCT	1989
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			UBER, NATHAN C	
			ART UNIT	PAPER NUMBER
			4143	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/565,392	Applicant(s) SON, MASAYOSHI	
	Examiner NATHAN C. UBER	Art Unit 4143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4 June 2007 and 23 January 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. This action is in reply to the filing of items required for a complete national stage entry application, those items filed on 15 August 2006.
2. Claims 1-14 are currently pending and have been examined.

Information Disclosure Statement

3. The Information Disclosure Statements filed 23 January 2006 and 4 June 2007 have been considered. Initialed copies of the Form 1449 are enclosed herewith.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference characters not mentioned in the description: 42 and 62. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference characters in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The abstract of the disclosure is objected to because it contains self-evident clauses. Correction is required. See MPEP § 608.01(b).

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6. The disclosure is objected to because of the following informalities: the specification contains numerous grammatical and idiomatic problems.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims contain at least one of the following terms which were either ill-defined in the specification or were used inconsistently in the claims and as a result rendered the claims indefinite. For the purposes of this examination examiner interpreted each term as shown below.

- notification = advertisements/messages, as in distributing notifications/advertisements
- switching = changing, as in changing which message is being displayed
- switching way information = data or instructions for when to change a message or which message to display next
- management server = central system

9. Claims 1 and 4-14 are replete with limitations for which there is insufficient antecedent basis in the preceding claims. Below is a list of limitations used throughout the claims that lack antecedent basis:

- content presentation devices – applicant alternates between the plural and singular in the claims and usually one or the other lacks antecedent basis
- basis
- delivery
- reception

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- communication network
- presentation device identifier
- times
- respective items
- content
- measurement time
- population distribution
- external information
- corresponding content
- delivery times
- elapsed time

10. Regarding claim 10, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. Further the use of "and/or" is indefinite because it is not clear whether the claim requires traffic and weather, one or the other, or neither. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 101

11. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 14 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The steps of the method of claim 14 are directed to an abstract idea; receiving data, measuring time, and changing display data. Abstract ideas are judicial exceptions and are not statutory unless they produce a physical transformation or a useful, concrete and tangible result. Here there is no physical transformation, and as claimed the method is not concrete. To be concrete the method must be predictable and repeatable. As claimed, the method is so abstract that the result, alternating content displayed on a display, cannot be

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predicted, nor is it clear that, given the same inputs, the result is sufficiently repeatable. Because there is not a physical transformation or a useful, tangible and concrete result, there is no practical application to this judicial exception. The method of claim 14 is not statutory subject matter under 35 U.S.C. 101.

Claim Rejections - 35 USC § 102

- 12.** The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- 13. Examiner's Note:** The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in preparing the response, should consider fully the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.
- 14.** Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Applicant's Own Admissions in the background of the specification (AOA).

Claim 1:

AOA, as shown, discloses the following limitations:

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- *a content accumulating unit that accumulates the content data (see at least pages 1-2 of the specification, lines 39 and 1-2, "a mobile terminal for receiving the information from the transmitter unit"),*
- *an identifier storing unit that stores a content presentation device identifier which is uniquely given to said content presentation devices (see at least page 1 of the specification, line 35, "an indicator"),*
- *an output unit that outputs said content data (see at least page 1 of the specification, line 35, "signboard"),*
- *a communication unit that receives a switching control signal which instructs to switch the content data output from said output unit (see at least page 1 of the specification, line 35, "transmitter unit"),*
- *an output switching unit that switches the content data output from said output unit on the basis of said switching control signal (see at least page 2 of the specification, lines 2-3, "information can be updated on a real time base...").*

Claim 2:

AOA, as shown, discloses the following limitations:

- *said communication unit has a capability of receiving said content data (see at least page 2 of the specification, lines 3-4, "delivering information through communication lines"),*
- *wherein said content accumulating unit has a capability of accumulating the content data as received by said communication unit (see at least pages 1-2 of the specification, lines 39 and 1-2, "a mobile terminal for receiving the information from the transmitter unit").*

Claim 3:

AOA, as shown, discloses the following limitations:

- *a notification unit that notifies the content presentation device identifier stored in said identifier storing unit (see at least page 1 of the specification, line 33, “display type notification device” and line 38, “notified about service content and the like...”).*

15. Claims 7-12 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Dukach et al. (U.S. 2004/0036622).

Claim 7:

Dukach, as shown, discloses the following limitations:

- *a management information database that accumulates management information by which presentation device identifiers which identify said content presentation devices, content identifiers which identify content to be output respectively by the content presentation devices, and presentation time information relating to the times in which the respective items of said content are presented (see at least ¶0131, “the schedule takes the form of a database... table also includes a time column, which identifies the time range during which a given record is to apply. The table further includes columns and that identify the display messages that are to be shown on the separately programmable displays”),*
- *a timer unit that periodically measures an elapsed time (see at least ¶0131, “the number of cumulative minutes the mobile unit or other mobile units have already displayed a particular message”),*
- *a communication unit that transmits a switching control signal designating the content, which is to be output, to a content presentation device determined on the basis of said management information and the measurement time of said timer (see at least ¶0137, “[central system] includes a wireless system for transmitting and receiving wireless messages to and from individual mobile units”).*

Claim 8:

Dukach, as shown, discloses the following limitations:

- *said management information contains switching way information as to whether content data to be replaced is replaced by content data delivered anew or by content already stored in the content presentation device, and wherein said switching control signal includes the content identifier of the content data for replacement in accordance with said switching way information (see at least ¶0131, “the schedule can be a virtually any type of data structure capable of indicating which display messages are to be shown by a mobile unit given information that can include...” and ...information “that identify[ies] the display messages that are to be shown”).*

Claim 9:

Dukach, as shown, discloses the following limitations:

- *said management information contains local information relating to the population distribution which is changing with time, and said switching control signal is generated and transmitted in accordance with said local information (see at least ¶0017, “In some such embodiments using a demographic database, the demographic database indicates the demographic characteristics of potential audiences both as a function of locations and time. Such embodiments use the database to select both at what locations and what times messages should be shown”),*

Claim 10:

Dukach, as shown, discloses the following limitations:

- *an external information acquisition unit that acquires information from external information service providers such as live traffic information and/or weather information wherein said management information contains external information to be associated and a switching condition applicable to said*

external information, and said switching control signal is generated and transmitted in accordance with said external information when said switching condition is satisfied (see at least ¶0182, "...a traffic database, which stores information about motor vehicle traffic flows derived from locator signals and other information generated by the system's mobile and fixed units; a weather database derived from weather information obtained from the system's mobile and fixed units...").

Claim 11:

Dukach, as shown, discloses the following limitations:

- *the content data is delivered to the corresponding content presentation device on the basis of said management information (see at least ¶0008, "the central computer system selects the information that will be shown on the vehicle mounted display as a function of the sensed location [and] transmits one or more messages to control circuitry on the vehicle, which causes the selected information to be displayed").*

Claim 12:

Dukach, as shown, discloses the following limitations:

- *said management information contains content delivery information which associates the content identifier of the content to be delivered, the presentation device identifier of the destination of delivery, and the delivery times with each other (see at least ¶0199, describing a display device controller that is capable of organizing message ID, display time, and various other functions).*

Claim 14:

Dukach, as shown, discloses the following limitations:

- *a step of accumulating management information by which presentation device identifiers which identify said content presentation devices, content*

identifiers which identify content to be output respectively by the content presentation devices, and presentation time information relating to the times in which the respective items of said content are presented (see at least ¶0131, “the schedule takes the form of a database... table also includes a time column, which identifies the time range during which a given record is to apply. The table further includes columns and that identify the display messages that are to be shown on the separately programmable displays”),

- *a step of periodically measuring an elapsed time (see at least ¶0131, “the number of cumulative minutes the mobile unit or other mobile units have already displayed a particular message”),*
- *a step of switching the content data that is presented by the presentation device specified by said content presentation device identifier on the basis of said management information and the elapsed time as measured (see at least ¶0008, “the central computer system selects the information that will be shown on the vehicle mounted display as a function of the sensed location [and] transmits one or more messages to control circuitry on the vehicle, which causes the selected information to be displayed”).*

Claim Rejections - 35 USC § 103

- 16.** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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17. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
18. Claims 4-6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Own Admissions in the background of the specification (AOA) in view of Dukach et al. (U.S. 2004/0036622).

Claim 4:

AOA, as shown, discloses the following limitations:

- *wherein the delivery of said content data or the reception of said switching control signal is performed through said communication network (see at least page 2 of the specification, lines 3-4, "delivering information through communication lines"),*

AOA does not disclose a base station or networking with other content presentation devices, however, Dukach, as shown, does:

- *said communication unit is provided with a network formation capability of forming a local communication network with a base station or other content presentation devices located in a predetermined area (see at least Figures 18 and 19, "central system 102" and ¶0205, "a local communication device"),*

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to control the displays using a central station and to provide the displays with local networking capability because such a system "provide[s] for more flexible, effective, and/or profitable usage of signs" (Dukach, ¶5).

Claim 5:

The combination AOA/Dukach discloses the limitation in the rejections above. AOA does not disclose a base station or networking with other content presentation devices, however, Dukach, as shown, does:

- *the content presentation device is provided with a capability of detecting another communication terminal apparatus located in said communication network, and notifying the presentation device identifier of its own device to said another communication terminal apparatus (see at least ¶0205, "[t]his device enables the non-mobile unit to interact with people and electronic systems in its locale, which contain similar local communication devices"),*

It would have been obvious to one having ordinary skill in the art at the time the invention was made to enable the displays to communicate with each other because such a system "provide[s] for more flexible, effective, and/or profitable usage of signs" (Dukach, ¶5), for example signs in close proximity to each other can be programmed not to display duplicative advertisements.

Claim 6:

The combination AOA/Dukach discloses the limitation in the rejections above. Further Dukach, as shown, discloses the following limitations:

- *said communication unit is provided with a capability of acquiring through said communication network a terminal identifier which is used to specify another communication terminal apparatus located in said communication network (see at least ¶0205, "[t]his device enables the non-mobile unit to interact with people and electronic systems in its locale, which contain similar local communication devices"),*

Dukach does not specifically disclose *acquiring... a terminal identifier*, however Examiner takes **Official Notice** that it is old and well known in the art that in order for any device to communicate over any kind of network, the respective devices must first be able to obtain identifiers to identify each other and establish a line of communication (i.e.

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communication ports between printers and computers). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to ensure that the displays transmit and acquire terminal identifiers because devices necessarily must identify each other in order to establish communication over a network.

Claim 13:

AOA, as shown, discloses the following limitations:

- *a content accumulating unit that accumulates the content data (see at least pages 1-2 of the specification, lines 39 and 1-2, "a mobile terminal for receiving the information from the transmitter unit"),*
- *an identifier storing unit that stores a content presentation device identifier which is uniquely given to said content presentation devices (see at least page 1 of the specification, line 35, "an indicator"),*
- *an output unit that outputs said content data (see at least page 1 of the specification, line 35, "signboard"),*
- *a communication unit that receives a switching control signal which instructs to switch the content data output from said output unit (see at least page 1 of the specification, line 35, "transmitter unit"),*
- *an output switching unit that switches the content data output from said output unit on the basis of said management information and the measurement time of said timer (see at least page 2 of the specification, lines 2-3, "information can be updated on a real time base..."),*

AOA does not disclose the following limitations, however, Dukach, as shown, does:

- *a management information database that accumulates management information by which said presentation device identifiers, content identifiers which identify content to be output respectively by the content presentation devices, and presentation time information relating to the times in which the respective items of said content are presented (see at least ¶0131, "the*

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schedule takes the form of a database... table also includes a time column, which identifies the time range during which a given record is to apply. The table further includes columns and that identify the display messages that are to be shown on the separately programmable displays”),

- *a timer unit that periodically measures an elapsed time* (see at least ¶0131, “the number of cumulative minutes the mobile unit or other mobile units have already displayed a particular message”),

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the advertisement distribution system disclosed in the background with the robust database management capabilities of Dukach because the combination “provide[s] for more flexible, effective, and/or profitable usage of signs” (Dukach, ¶0005).

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Struble, U.S. 2003/0004796, a system and method for presenting advertisements
- Vaitekunas et al., U.S. 2003/0004805, a system and method for presenting advertisements on electronic billboards
- Yoshida, Japanese Published Patent Application, 2003-69512

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20. Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Nathan C Uber** whose telephone number is **571.270.3923**. The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **James A Reagan** can be reached at **571.270.6710**.
21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).
22. Any response to this action should be mailed to:

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/Nathan C Uber/ Examiner, Art Unit 4143

13 February 2008

/James A. Reagan/Supervisory Patent Examiner, Art Unit 4143